

SEQUENCE LISTING

<110> Pramod K. Srivastava

<120> ALPHA(2) MACROGLOBULIN RECEPTOR AS A HEAT SHOCK
PROTEIN RECEPTOR AND USES THEREOF

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<150> 60/209,095

<151> 2000-06-02

<160> 57

<170> FastSEQ for Windows Version 3.0

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<212> DNA

<213> Mus musculus

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| | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | |
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| Ala | Val | Asp | Trp | Met | Gly | Asp | Asn | Leu | Tyr | Trp | Thr | Asp | Asp | Gly | Pro | 610 | 615 | 620 | |
| Lys | Lys | Thr | Ile | Ser | Val | Ala | Arg | Leu | Glu | Lys | Ala | Ala | Gln | Thr | Arg | 625 | 630 | 635 | 640 |
| Lys | Thr | Leu | Ile | Glu | Gly | Lys | Met | Thr | His | Pro | Arg | Ala | Ile | Val | Val | 645 | 650 | 655 | |
| Asp | Pro | Leu | Asn | Gly | Trp | Met | Tyr | Trp | Thr | Asp | Trp | Glu | Glu | Asp | Pro | 660 | 665 | 670 | |
| Lys | Asp | Ser | Arg | Arg | Gly | Arg | Leu | Glu | Arg | Ala | Trp | Met | Asp | Gly | Ser | 675 | 680 | 685 | |
| His | Arg | Asp | Ile | Phe | Val | Thr | Ser | Lys | Thr | Val | Leu | Trp | Pro | Asn | Gly | 690 | 695 | 700 | |
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| Tyr | Asp | Arg | Ile | Glu | Thr | Ile | Leu | Leu | Asn | Gly | Thr | Asp | Arg | Lys | Ile | 725 | 730 | 735 | |
| Val | Tyr | Glu | Gly | Pro | Glu | Leu | Asn | His | Ala | Phe | Gly | Leu | Cys | His | His | 740 | 745 | 750 | |
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| Tyr | Val | Pro | Pro | Pro | Gln | Cys | Gln | Pro | Gly | Gln | Phe | Ala | Cys | Ala | Asn | 850 | 855 | 860 | |
| Asn | Arg | Cys | Ile | Gln | Glu | Arg | Trp | Lys | Cys | Asp | Gly | Asp | Asn | Asp | Cys | 865 | 870 | 875 | 880 |
| Leu | Asp | Asn | Ser | Asp | Glu | Ala | Pro | Ala | Leu | Cys | His | Gln | His | Thr | Cys | 885 | 890 | 895 | |
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| Cys | Phe | Pro | Leu | Thr | Gln | Phe | Thr | Cys | Asn | Asn | Gly | Arg | Cys | Ile | Asn | 980 | 985 | 990 | |
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| | | 1490 | | | | | 1495 | | | | 1500 | | | | |
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| Leu | Cys | Leu | Ile | Asn | Tyr | Asn | Arg | Thr | Val | Ser | Trp | Ala | Cys | Pro | His |
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| Leu | Met | Lys | Leu | His | Lys | Asp | Asn | Thr | Thr | Cys | Tyr | Glu | Phe | Lys | Lys |
| | | 1570 | | | | 1575 | | | | | 1580 | | | | |
| Phe | Leu | Leu | Tyr | Ala | Arg | Gln | Met | Glu | Ile | Arg | Gly | Val | Asp | Leu | Asp |
| 1585 | | | | | 1590 | | | | | 1595 | | | | | 1600 |
| Ala | Pro | Tyr | Tyr | Asn | Tyr | Ile | Ile | Ser | Phe | Thr | Val | Pro | Asp | Ile | Asp |
| | | | | 1605 | | | | | 1610 | | | | | | 1615 |
| Asn | Val | Thr | Val | Leu | Asp | Tyr | Asp | Ala | Arg | Glu | Gln | Arg | Val | Tyr | Trp |
| | | | 1620 | | | | | 1625 | | | | | 1630 | | |
| Ser | Asp | Val | Arg | Thr | Gln | Ala | Ile | Lys | Arg | Ala | Phe | Ile | Asn | Gly | Thr |
| | | 1635 | | | | | 1640 | | | | | 1645 | | | |
| Gly | Val | Glu | Thr | Val | Val | Ser | Ala | Asp | Leu | Pro | Asn | Ala | His | Gly | Leu |
| | | 1650 | | | | 1655 | | | | | 1660 | | | | |
| Ala | Val | Asp | Trp | Val | Ser | Arg | Asn | Leu | Phe | Trp | Thr | Ser | Tyr | Asp | Thr |
| 1665 | | | | | 1670 | | | | | 1675 | | | | | 1680 |
| Asn | Lys | Lys | Gln | Ile | Asn | Val | Ala | Arg | Leu | Asp | Gly | Ser | Phe | Lys | Asn |
| | | | | 1685 | | | | | 1690 | | | | | | 1695 |
| Ala | Val | Val | Gln | Gly | Leu | Glu | Gln | Pro | His | Gly | Leu | Val | Val | His | Pro |
| | | | 1700 | | | | | 1705 | | | | | 1710 | | |
| Leu | Arg | Gly | Lys | Leu | Tyr | Trp | Thr | Asp | Gly | Asp | Asn | Ile | Ser | Met | Ala |
| | | 1715 | | | | | 1720 | | | | | 1725 | | | |
| Asn | Met | Asp | Gly | Ser | Asn | His | Thr | Leu | Leu | Phe | Ser | Gly | Gln | Lys | Gly |
| | | 1730 | | | | 1735 | | | | | 1740 | | | | |
| Pro | Val | Gly | Leu | Ala | Ile | Asp | Phe | Pro | Glu | Ser | Lys | Leu | Tyr | Trp | Ile |
| 1745 | | | | | 1750 | | | | | 1755 | | | | | 1760 |
| Ser | Ser | Gly | Asn | His | Thr | Ile | Asn | Arg | Cys | Asn | Leu | Asp | Gly | Ser | Glu |
| | | | 1765 | | | | | | 1770 | | | | | 1775 | |
| Leu | Glu | Val | Ile | Asp | Thr | Met | Arg | Ser | Gln | Leu | Gly | Lys | Ala | Thr | Ala |
| | | | 1780 | | | | | 1785 | | | | | 1790 | | |
| Leu | Ala | Ile | Met | Gly | Asp | Lys | Leu | Trp | Trp | Ala | Asp | Gln | Val | Ser | Glu |
| | | 1795 | | | | | 1800 | | | | 1805 | | | | |
| Lys | Met | Gly | Thr | Cys | Asn | Lys | Ala | Asp | Gly | Ser | Gly | Ser | Val | Val | Leu |
| | | 1810 | | | | | | | | | | | | | |

| Table 1. Demographic characteristics of the study population | |
|--|-------------|
| Age (years) | Mean (SD) |
| Male | 55.2 (10.5) |
| Female | 56.8 (11.2) |
| Marital status | |
| Married | 78.5% |
| Single | 12.3% |
| Divorced | 8.2% |
| Widowed | 1.0% |
| Education (years) | Mean (SD) |
| Male | 12.5 (2.1) |
| Female | 11.8 (2.5) |
| Occupation | |
| Professional | 35.2% |
| Managerial | 22.1% |
| Technical | 18.7% |
| Service | 15.3% |
| Unemployed | 7.5% |
| Retired | 2.0% |
| Health status | |
| Good | 65.4% |
| Fair | 28.9% |
| Poor | 5.7% |
| Smoking status | |
| Smoker | 32.1% |
| Non-smoker | 67.9% |
| Alcohol consumption | |
| Regular | 15.8% |
| Occasional | 22.3% |
| Never | 61.9% |

[illegible]

| | | |
|---|---|----------------|
| Arg Cys Ala Asn Gly | Arg Cys Leu Ser Ser Arg Gln Trp Glu Cys Asp | |
| 2865 | 2870 | 2875 2880 |
| Gly Glu Asn Asp Cys His Asp His Ser Asp Glu Ala Pro Lys Asn Pro | | |
| | 2885 | 2890 2895 |
| His Cys Thr Ser Pro Glu His Lys Cys Asn Ala Ser Ser Gln Phe Leu | | |
| | 2900 | 2905 2910 |
| Cys Ser Ser Gly Arg Cys Val Ala Glu Ala Leu Leu Cys Asn Gly Gln | | |
| | 2915 | 2920 2925 |
| Asp Asp Cys Gly Asp Gly Ser Asp Glu Arg Gly Cys His Val Asn Glu | | |
| | 2930 | 2935 2940 |
| Cys Leu Ser Arg Lys Leu Ser Gly Cys Ser Gln Asp Cys Glu Asp Leu | | |
| | 2945 | 2950 2955 2960 |
| Lys Ile Gly Phe Lys Cys Arg Cys Arg Pro Gly Phe Arg Leu Lys Asp | | |
| | 2965 | 2970 2975 |
| Asp Gly Arg Thr Cys Ala Asp Leu Asp Glu Cys Ser Thr Thr Phe Pro | | |
| | 2980 | 2985 2990 |
| Cys Ser Gln Leu Cys Ile Asn Thr His Gly Ser Tyr Lys Cys Leu Cys | | |
| | 2995 | 3000 3005 |
| Val Glu Gly Tyr Ala Pro Arg Gly Gly Asp Pro His Ser Cys Lys Ala | | |
| | 3010 | 3015 3020 |
| Val Thr Asp Glu Glu Pro Phe Leu Ile Phe Ala Asn Arg Tyr Tyr Leu | | |
| | 3025 | 3030 3035 3040 |
| Arg Lys Leu Asn Leu Asp Gly Ser Asn Tyr Thr Leu Leu Lys Gln Gly | | |
| | 3045 | 3050 3055 |
| Leu Asn Asn Ala Val Ala Leu Ala Phe Asp Tyr Arg Glu Gln Met Ile | | |
| | 3060 | 3065 3070 |
| Tyr Trp Thr Gly Val Thr Thr Gln Gly Ser Met Ile Arg Arg Met His | | |
| | 3075 | 3080 3085 |
| Leu Asn Gly Ser Asn Val Gln Val Leu His Arg Thr Gly Leu Ser Asn | | |
| | 3090 | 3095 3100 |
| Pro Asp Gly Leu Ala Val Asp Trp Val Gly Gly Asn Leu Tyr Trp Cys | | |
| | 3105 | 3110 3115 3120 |
| Asp Lys Gly Arg Asp Thr Ile Glu Val Ser Lys Leu Asn Gly Ala Tyr | | |
| | 3125 | 3130 3135 |
| Arg Thr Val Leu Val Ser Ser Gly Leu Arg Glu Pro Arg Ala Leu Val | | |
| | 3140 | 3145 3150 |
| Val Asp Val Gln Asn Gly Tyr Leu Tyr Trp Thr Asp Trp Gly Asp His | | |
| | 3155 | 3160 3165 |
| Ser Leu Ile Gly Arg Ile Gly Met Asp Gly Ser Gly Arg Ser Ile Ile | | |
| | 3170 | 3175 3180 |
| Val Asp Thr Lys Ile Thr Trp Pro Asn Gly Leu Thr Val Asp Tyr Val | | |
| | 3185 | 3190 3195 3200 |
| Thr Glu Arg Ile Tyr Trp Ala Asp Ala Arg Glu Asp Tyr Ile Glu Phe | | |
| | 3205 | 3210 3215 |
| Ala Ser Leu Asp Gly Ser Asn Arg His Val Val Leu Ser Gln Asp Ile | | |
| | 3220 | 3225 3230 |
| Pro His Ile Phe Ala Leu Thr Leu Phe Glu Asp Tyr Val Tyr Trp Thr | | |
| | 3235 | 3240 3245 |
| Asp Trp Glu Thr Lys Ser Ile Asn Arg Ala His Lys Thr Thr Gly Ala | | |
| | 3250 | 3255 3260 |
| Asn Lys Thr Leu Leu Ile Ser Thr Leu His Arg Pro Met Asp Leu His | | |
| | 3265 | 3270 3275 3280 |
| Val Phe His Ala Leu Arg Gln Pro Asp Val Pro Asn His Pro Cys Lys | | |
| | 3285 | 3290 3295 |
| Val Asn Asn Gly Gly Cys Ser Asn Leu Cys Leu Leu Ser Pro Gly Gly | | |
| | 3300 | 3305 3310 |
| Gly His Lys Cys Ala Cys Pro Thr Asn Phe Tyr Leu Gly Gly Asp Gly | | |
| | 3315 | 3320 3325 |

[illegible]

| | | | | | | | | | | | | | | | |
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| Ala | Cys | Arg | Ser | Gly | Phe | His | Thr | Val | Pro | Gly | Gln | Pro | Gly | Cys | Gln |
| | | 3810 | | | | 3815 | | | | | 3820 | | | | |
| Asp | Ile | Asn | Glu | Cys | Leu | Arg | Phe | Gly | Thr | Cys | Ser | Gln | Leu | Trp | Asn |
| 3825 | | | | | 3830 | | | | | 3835 | | | | | 3840 |
| Lys | Pro | Lys | Gly | Gly | His | Leu | Cys | Ser | Cys | Ala | Arg | Asn | Phe | Met | Lys |
| | | | | 3845 | | | | | 3850 | | | | | 3855 | |
| Thr | His | Asn | Thr | Cys | Lys | Ala | Glu | Gly | Ser | Glu | Tyr | Gln | Val | Leu | Tyr |
| | | | 3860 | | | | | 3865 | | | | | 3870 | | |
| Ile | Ala | Asp | Asp | Asn | Glu | Ile | Arg | Ser | Leu | Phe | Pro | Gly | His | Pro | His |
| | | 3875 | | | | | 3880 | | | | 3885 | | | | |
| Ser | Ala | Tyr | Glu | Gln | Thr | Phe | Gln | Gly | Asp | Glu | Ser | Val | Arg | Ile | Asp |
| | | 3890 | | | | 3895 | | | | 3900 | | | | | |
| Ala | Met | Asp | Val | His | Val | Lys | Ala | Gly | Arg | Val | Tyr | Trp | Thr | Asn | Trp |
| 3905 | | | | | 3910 | | | | | 3915 | | | | | 3920 |
| His | Thr | Gly | Thr | Ile | Ser | Tyr | Arg | Ser | Leu | Pro | Pro | Ala | Ala | Pro | Pro |
| | | | | 3925 | | | | | 3930 | | | | | 3935 | |
| Thr | Thr | Ser | Asn | Arg | His | Arg | Arg | Gln | Ile | Asp | Arg | Gly | Val | Thr | His |
| | | | 3940 | | | | | 3945 | | | | | 3950 | | |
| Leu | Asn | Ile | Ser | Gly | Leu | Lys | Met | Pro | Arg | Gly | Ile | Ala | Ile | Asp | Trp |
| | | 3955 | | | | | 3960 | | | | 3965 | | | | |
| Val | Ala | Gly | Asn | Val | Tyr | Trp | Thr | Asp | Ser | Gly | Arg | Asp | Val | Ile | Glu |
| | | 3970 | | | | 3975 | | | | 3980 | | | | | |
| Val | Ala | Gln | Met | Lys | Gly | Glu | Asn | Arg | Lys | Thr | Leu | Ile | Ser | Gly | Met |
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| Ile | Asp | Glu | Pro | His | Ala | Ile | Val | Val | Asp | Pro | Leu | Arg | Gly | Thr | Met |
| | | | | 4005 | | | | | 4010 | | | | | 4015 | |
| Tyr | Trp | Ser | Asp | Trp | Gly | Asn | His | Pro | Lys | Ile | Glu | Thr | Ala | Ala | Met |
| | | 4020 | | | | | | 4025 | | | | | 4030 | | |
| Asp | Gly | Thr | Leu | Arg | Glu | Thr | Leu | Val | Gln | Asp | Asn | Ile | Gln | Trp | Pro |
| | | 4035 | | | | | 4040 | | | | 4045 | | | | |
| Thr | Gly | Leu | Ala | Val | Asp | Tyr | His | Asn | Glu | Arg | Leu | Tyr | Trp | Ala | Asp |
| | | 4050 | | | | 4055 | | | | 4060 | | | | | |
| Ala | Lys | Leu | Ser | Val | Ile | Gly | Ser | Ile | Arg | Leu | Asn | Gly | Thr | Asp | Pro |
| 4065 | | | | 4070 | | | | | | 4075 | | | | | 4080 |
| Ile | Val | Ala | Ala | Asp | Ser | Lys | Arg | Gly | Leu | Ser | His | Pro | Phe | Ser | Ile |
| | | | | 4085 | | | | | 4090 | | | | | 4095 | |
| Asp | Val | Phe | Glu | Asp | Tyr | Ile | Tyr | Gly | Val | Thr | Tyr | Ile | Asn | Asn | Arg |
| | | 4100 | | | | | | 4105 | | | | | 4110 | | |
| Val | Phe | Lys | Ile | His | Lys | Phe | Gly | His | Ser | Pro | Leu | Tyr | Asn | Leu | Thr |
| | | 4115 | | | | | 4120 | | | | 4125 | | | | |
| Gly | Gly | Leu | Ser | His | Ala | Ser | Asp | Val | Val | Leu | Tyr | His | Gln | His | Lys |
| | | 4130 | | | | 4135 | | | | | | | | | |

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 Pro Pro His Met Thr Gly Pro Arg Cys Gln Glu Gln Val Val Ser Gln
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 Glu Pro Asp Asp Val Gly Gly Leu Leu Asp Ala Asp Phe Ala Leu Asp
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 Pro Asp Lys Pro Thr Asn Phe Thr Asn Pro Val Tyr Ala Thr Leu Tyr
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| catttgtggtg | gaccactga | gggggaccat | gtactggtca | gactggggca | accaccccaa | 12540 |
| gattgagacg | gcagcgtatg | atgggacgct | tcgggagaca | ctggtgcagg | acaacattca | 12600 |
| gtggcccaca | ggcctggccg | tggattatca | caatgagcgg | ctgtactggg | cagacgccaa | 12660 |
| gctttcagtc | atcggcgaga | tcgggtctca | tggcacggac | cccattgtgg | ctgtctgacg | 12720 |
| caaacgaggg | ctaagtcaac | ccttcagcat | cgactctctt | gaggattaca | tctatggtgt | 12780 |
| cacctacatc | aataatcgtg | ctttcaagat | ccataagttt | ggccacagcc | ccttggtcaa | 12840 |
| cctgacaggg | ggcctgagcc | acgcctctga | cgtggtcctt | taccatcagc | acaagcagcc | 12900 |
| cgaagtgacc | aacccatgtg | accgcaagaa | atgcgagtgg | ctctgcctgc | tgagccccag | 12960 |
| tgggcctgtc | tgcacctgtc | ccaatgggaa | gcggctggac | aacggcacat | gcgtgcctgt | 13020 |
| gccctctcca | acgccccccc | cagatgctcc | ccggcctgga | acctgtaac | tgcagtgcct | 13080 |
| caacggtggc | agctgtttcc | tcaatgacg | gaggcagccc | aagtgcgcgt | gccaaccccg | 13140 |
| ctacacgggt | gacaagtgtg | aactggacca | gtgctgggag | cactgtcgca | atggggggc | 13200 |
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| ccagggcaac | cagccccagt | gccgatgcct | accggcttc | ctgggcgacc | gctgccagta | 13380 |
| ccggcagtg | tctggctact | gtgagaactt | tggcacatgc | cagatggctg | ctgatggctc | 13440 |
| ccgacaatgc | cgctgcactg | cctactttga | gggatcgagg | tgtgaggtga | acaagtgcag | 13500 |
| ccgctgtctc | gaagggggct | gtgtggtcaa | caagcagagt | ggggatgtca | cctgcaactg | 13560 |
| cacggatggc | cgggtggccc | ccagctgtct | gacctgcgtc | ggccactgca | gcaatggcgg | 13620 |
| ctcctgtacc | tggaacagca | aaatgatgcc | tgagtgccag | tgcccacccc | acatgacagg | 13680 |
| gccccgggtg | gaggagcacg | tcttcagcca | gcagcagcca | ggacatatag | cctccatcct | 13740 |
| aatccctctg | ctgthtctgc | tgctgctggt | tctggtggcc | ggagtgggtat | tctggtataa | 13800 |
| gcggcgagtc | caaggggcta | agggcttcca | gcaccaacgg | atgaccaacg | gggcatagaa | 13860 |
| cgtggagatt | ggaaacccca | cctacaagat | gtacgaaggc | ggagagcctg | atgatgtggg | 13920 |
| aggcctactg | gacgctgact | tggccttggg | ccctgacaag | ccaccaact | tcaccaaccc | 13980 |
| cgtgtatgcc | acactctaca</ | | | | | |

```

gggccctgcc ccgtcggact gccccagaa agcctcctgc ccctgcggg tgaagtcctt 14160
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```

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<210> 7
<211> 126
<212> PRT
<213> Homo sapiens

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<400> 7
Ile Ala Leu Asp Phe His Leu Ser Gln Ser Ala Leu Tyr Trp Thr Asp
1 5 10 15
Val Val Glu Asp Lys Ile Tyr Arg Gly Lys Leu Leu Asp Asn Gly Ala
20 25 30
Leu Thr Ser Phe Glu Val Val Ile Gln Tyr Gly Leu Ala Thr Pro Glu
35 40 45
Gly Leu Ala Val Asp Trp Ile Ala Gly Asn Ile Tyr Trp Val Glu Ser
50 55 60
Asn Leu Asp Gln Ile Glu Val Ala Lys Leu Asp Gly Thr Leu Arg Thr
65 70 75 80
Thr Leu Leu Ala Gly Asp Ile Glu His Pro Arg Ala Ile Ala Leu Asp
85 90 95
Pro Arg Asp Gly Ile Leu Phe Trp Thr Asp Trp Asp Ala Ser Leu Pro
100 105 110
Arg Ile Glu Ala Ala Ser Met Ser Gly Ala Gly Arg Arg Thr
115 120 125

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<210> 8
<211> 153
<212> PRT
<213> Homo sapiens

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<400> 8
Leu Leu Gln Gln Val Ser Leu Pro Glu Leu Pro Gly Glu Tyr Ser Met
1 5 10 15
Lys Val Thr Gly Glu Gly Cys Val Tyr Leu Gln Thr Ser Leu Lys Tyr
20 25 30
Asn Ile Leu Pro Glu Lys Glu Glu Phe Pro Phe Ala Leu Gly Val Gln
35 40 45
Thr Leu Pro Gln Thr Cys Asp Glu Pro Lys Ala His Thr Ser Phe Gln
50 55 60
Ile Ser Leu Ser Val Ser Tyr Thr Gly Ser Arg Ser Ala Ser Asn Met
65 70 75 80
Ala Ile Val Asp Val Lys Met Val Ser Gly Phe Ile Pro Leu Lys Pro
85 90 95

```

Thr Val Lys Met Leu Glu Arg Ser Asn His Val Ser Arg Thr Glu Val
 100 105 110
 Ser Ser Asn His Val Leu Ile Tyr Leu Asp Lys Val Ser Asn Gln Thr
 115 120 125
 Leu Ser Leu Phe Phe Thr Val Leu Gln Asp Val Pro Val Arg Asp Leu
 130 135 140
 Lys Pro Ala Ile Val Lys Val Tyr Asp
 145 150

<210> 9
 <211> 138
 <212> PRT
 <213> Homo sapiens

<400> 9
 Met Lys Val Thr Gly Glu Gly Cys Val Tyr Leu Gln Thr Ser Leu Lys
 1 5 10 15
 Tyr Asn Ile Leu Pro Glu Lys Glu Glu Phe Pro Phe Ala Leu Gly Val
 20 25 30
 Gln Thr Leu Pro Gln Thr Cys Asp Glu Pro Lys Ala His Thr Ser Phe
 35 40 45
 Gln Ile Ser Leu Ser Val Ser Tyr Thr Gly Ser Arg Ser Ala Ser Asn
 50 55 60
 Met Ala Ile Val Asp Val Lys Met Val Ser Gly Phe Ile Pro Leu Lys
 65 70 75 80
 Pro Thr Val Lys Met Leu Glu Arg Ser Asn His Val Ser Arg Thr Glu
 85 90 95
 Val Ser Ser Asn His Val Leu Ile Tyr Leu Asp Lys Val Ser Asn Gln
 100 105 110
 Thr Leu Ser Leu Phe Phe Thr Val Leu Gln Asp Val Pro Val Arg Asp
 115 120 125
 Leu Lys Pro Ala Ile Val Lys Val Tyr Asp
 130 135

<210> 10
 <211> 27
 <212> PRT
 <213> Homo sapiens

<400> 10
 Ser Val Ser Tyr Thr Gly Ser Arg Ser Ala Ser Asn Met Ala Ile Val
 1 5 10 15
 Asp Val Lys Met Val Ser Gly Phe Ile Pro Leu
 20 25

<210> 11
 <211> 126
 <212> PRT
 <213> Homo sapiens

<400> 11
 Leu Gln Gln Val Ser Leu Pro Glu Leu Pro Gly Glu Tyr Ser Met Lys
 1 5 10 15
 Val Thr Gly Glu Gly Cys Val Tyr Leu Gln Thr Ser Leu Lys Tyr Asn
 20 25 30
 Ile Leu Pro Glu Lys Glu Glu Phe Pro Phe Ala Leu Gly Val Gln Thr
 35 40 45

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Pro | Gln | Thr | Cys | Asp | Glu | Pro | Lys | Ala | His | Thr | Ser | Phe | Gln | Ile |
| 50 | | | | | | 55 | | | | | 60 | | | | |
| Ser | Leu | Ser | Val | Ser | Tyr | Thr | Gly | Ser | Arg | Ser | Ala | Ser | Asn | Met | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ile | Val | Asp | Val | Lys | Met | Val | Ser | Gly | Phe | Ile | Pro | Leu | Lys | Pro | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Lys | Met | Leu | Glu | Arg | Ser | Asn | His | Val | Ser | Arg | Thr | Glu | Val | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Asn | His | Val | Leu | Ile | Tyr | Leu | Asp | Lys | Val | Ser | Asn | Gln | | |
| | 115 | | | | | | 120 | | | | | 125 | | | |

<210> 12
 <211> 111
 <212> PRT
 <213> Homo sapiens

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Gln | Gln | Val | Ser | Leu | Pro | Glu | Leu | Pro | Gly | Glu | Tyr | Ser | Met | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Thr | Gly | Glu | Gly | Cys | Val | Tyr | Leu | Gln | Thr | Ser | Leu | Lys | Tyr | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Leu | Pro | Glu | Lys | Glu | Glu | Phe | Pro | Phe | Ala | Leu | Gly | Val | Gln | Thr |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Leu | Pro | Gln | Thr | Cys | Asp | Glu | Pro | Lys | Ala | His | Thr | Ser | Phe | Gln | Ile |
| 50 | | | | | | 55 | | | | | 60 | | | | |
| Ser | Leu | Ser | Val | Ser | Tyr | Thr | Gly | Ser | Arg | Ser | Ala | Ser | Asn | Met | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ile | Val | Asp | Val | Lys | Met | Val | Ser | Gly | Phe | Ile | Pro | Leu | Lys | Pro | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Lys | Met | Leu | Glu | Arg | Ser | Asn | His | Val | Ser | Arg | Thr | Glu | Val | |
| | | | 100 | | | | | 105 | | | | | 110 | | |

<210> 13
 <211> 81
 <212> PRT
 <213> Homo sapiens

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Gln | Gln | Val | Ser | Leu | Pro | Glu | Leu | Pro | Gly | Glu | Tyr | Ser | Met | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Thr | Gly | Glu | Gly | Cys | Val | Tyr | Leu | Gln | Thr | Ser | Leu | Lys | Tyr | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Leu | Pro | Glu | Lys | Glu | Glu | Phe | Pro | Phe | Ala | Leu | Gly | Val | Gln | Thr |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Leu | Pro | Gln | Thr | Cys | Asp | Glu | Pro | Lys | Ala | His | Thr | Ser | Phe | Gln | Ile |
| 50 | | | | | | 55 | | | | | 60 | | | | |
| Ser | Leu | Ser | Val | Ser | Tyr | Thr | Gly | Ser | Arg | Ser | Ala | Ser | Asn | Met | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ile | | | | | | | | | | | | | | | |

<210> 14
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 14

Gln Thr Ser Leu Lys Tyr Asn Ile Leu Pro Glu Lys Glu Glu Phe Pro
 1 5 10 15
 Phe Ala Leu Gly Val Gln Thr Leu Pro Gln Thr Cys Asp Glu Pro Lys
 20 25 30
 Ala His Thr Ser Phe Gln Ile Ser Leu Ser Val Ser Tyr Thr Gly Ser
 35 40 45
 Arg Ser Ala Ser Asn Met Ala Ile Val Asp Val Lys Met Val Ser Gly
 50 55 60
 Phe Ile Pro Leu Lys Pro Thr Val Lys Met Leu Glu Arg Ser Asn His
 65 70 75 80
 Val Ser Arg Thr Glu Val Ser Ser Asn His Val Leu Ile Tyr Leu Asp
 85 90 95
 Lys Val Ser Asn Gln
 100

<210> 15
 <211> 76
 <212> PRT
 <213> Homo sapiens

<400> 15
 Gln Thr Ser Leu Lys Tyr Asn Ile Leu Pro Glu Lys Glu Glu Phe Pro
 1 5 10 15
 Phe Ala Leu Gly Val Gln Thr Leu Pro Gln Thr Cys Asp Glu Pro Lys
 20 25 30
 Ala His Thr Ser Phe Gln Ile Ser Leu Ser Val Ser Tyr Thr Gly Ser
 35 40 45
 Arg Ser Ala Ser Asn Met Ala Ile Val Asp Val Lys Met Val Ser Gly
 50 55 60
 Phe Ile Pro Leu Lys Pro Thr Val Lys Met Leu Glu
 65 70 75

<210> 16
 <211> 56
 <212> PRT
 <213> Homo sapiens

<400> 16
 Gln Thr Ser Leu Lys Tyr Asn Ile Leu Pro Glu Lys Glu Glu Phe Pro
 1 5 10 15
 Phe Ala Leu Gly Val Gln Thr Leu Pro Gln Thr Cys Asp Glu Pro Lys
 20 25 30
 Ala His Thr Ser Phe Gln Ile Ser Leu Ser Val Ser Tyr Thr Gly Ser
 35 40 45
 Arg Ser Ala Ser Asn Met Ala Ile
 50 55

<210> 17
 <211> 76
 <212> PRT
 <213> Homo sapiens

<400> 17
 Gln Thr Cys Asp Glu Pro Lys Ala His Thr Ser Phe Gln Ile Ser Leu
 1 5 10 15
 Ser Val Ser Tyr Thr Gly Ser Arg Ser Ala Ser Asn Met Ala Ile Val
 20 25 30

Ser Asp Glu Ala Pro Glu Ile Cys Pro Gln Ser Lys Ala Gln Arg Cys
35 40 45
Gln Pro Asn Glu His Asn Cys Leu Gly Thr Glu Leu Cys Val Pro Met
50 55 60
Ser Arg Leu Cys Asn Gly Val Gln Asp Cys Met Asp Gly Ser Asp Glu
65 70 75 80
Gly Pro His Cys Arg Glu
85

<210> 22
<211> 43
<212> PRT
<213> Homo sapiens

<400> 22
Lys Ala Gln Arg Cys Gln Pro Asn Glu His Asn Cys Leu Gly Thr Glu
1 5 10 15
Leu Cys Val Pro Met Ser Arg Leu Cys Asn Gly Val Gln Asp Cys Met
20 25 30
Asp Gly Ser Asp Glu Gly Pro His Cys Arg Glu
35 40

<210> 23
<211> 42
<212> PRT
<213> Homo sapiens

<400> 23
Gln Cys Gln Pro Gly Glu Phe Ala Cys Ala Asn Ser Arg Cys Ile Gln
1 5 10 15
Glu Arg Trp Lys Cys Asp Gly Asp Asn Asp Cys Leu Asp Asn Ser Asp
20 25 30
Glu Ala Pro Ala Leu Cys His Gln His Thr
35 40

<210> 24
<211> 82
<212> PRT
<213> Homo sapiens

<400> 24
Gln Cys Gln Pro Gly Glu Phe Ala Cys Ala Asn Ser Arg Cys Ile Gln
1 5 10 15
Glu Arg Trp Lys Cys Asp Gly Asp Asn Asp Cys Leu Asp Asn Ser Asp
20 25 30
Glu Ala Pro Ala Leu Cys His Gln His Thr Cys Pro Ser Asp Arg Phe
35 40 45
Lys Cys Glu Asn Asn Arg Cys Ile Pro Asn Arg Trp Leu Cys Asp Gly
50 55 60
Asp Asn Asp Cys Gly Asn Ser Glu Asp Glu Ser Asn Ala Thr Cys Ser
65 70 75 80
Ala Arg

<210> 25
<211> 122
<212> PRT
<213> Homo sapiens

[illegible]

| | | | | | | | | | | | | | | | |
|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|-----|-----------|-----|-----------|-----|------------|-----------|-----|
| Cys 1 | Pro | Ser | Asp | Arg 5 | Phe | Lys | Cys | Glu | Asn 10 | Asn | Arg | Cys | Ile | Pro 15 | Asn |
| Arg | Trp | Leu | Cys 20 | Asp | Gly | Asp | Asn 25 | Asp | Cys | Gly | Asn | Ser | Glu 30 | Asp | Glu |
| Ser | Asn | Ala 35 | Thr | Cys | Ser | Ala 40 | Arg | Thr | Cys | Pro | Pro 45 | Asn | Gln | Phe | Ser |
| Cys | Ala 50 | Ser | Gly | Arg | Cys 55 | Ile | Pro 60 | Ile | Ser | Trp | Thr 65 | Cys | Asp | Leu | Asp |
| Asp 65 | Asp | Cys | Gly | Asp 70 | Arg | Ser | Asp | Glu | Ser 75 | Ala | Ser | Cys | Ala | Tyr 80 | Pro |
| Thr | Cys | Phe | Pro | Leu 85 | Thr | Gln | Phe | Thr | Cys 90 | Asn | Asn | Gly | Arg | Cys 95 | Ile |
| Asn | Ile | Asn | Trp 100 | Arg | Cys | Asp | Asn 105 | Asp | Asn | Asp | Cys | Gly | Asp 110 | Asn | Ser |
| Asp | Glu | Ala 115 | Gly | Cys | Ser | His | | | | | | | | | |

[illegible]

<400> 34

<210> 36
 <211> 40
 <212> PRT
 <213> Homo sapiens

<400> 36
 Thr Cys Pro Pro Asn Gln Phe Ser Cys Ala Ser Gly Arg Cys Ile Pro
 1 5 10 15
 Ile Ser Trp Thr Cys Asp Leu Asp Asp Cys Gly Asp Arg Ser Asp
 20 25 30
 Glu Ser Ala Ser Cys Ala Tyr Pro
 35 40

<210> 37
 <211> 79
 <212> PRT
 <213> Homo sapiens

<400> 37
 Thr Cys Pro Pro Asn Gln Phe Ser Cys Ala Ser Gly Arg Cys Ile Pro
 1 5 10 15
 Ile Ser Trp Thr Cys Asp Leu Asp Asp Cys Gly Asp Arg Ser Asp
 20 25 30
 Glu Ser Ala Ser Cys Ala Tyr Pro Thr Cys Phe Pro Leu Thr Gln Phe
 35 40 45
 Thr Cys Asn Asn Gly Arg Cys Ile Asn Ile Asn Trp Arg Cys Asp Asn
 50 55 60
 Asp Asn Asp Cys Gly Asp Asn Ser Asp Glu Ala Gly Cys Ser His
 65 70 75

<210> 38
 <211> 126
 <212> PRT
 <213> Homo sapiens

<400> 38
 Thr Cys Pro Pro Asn Gln Phe Ser Cys Ala Ser Gly Arg Cys Ile Pro
 1 5 10 15
 Ile Ser Trp Thr Cys Asp Leu Asp Asp Asp Cys Gly Asp Arg Ser Asp
 20 25 30
 Glu Ser Ala Ser Cys Ala Tyr Pro Thr Cys Phe Pro Leu Thr Gln Phe
 35 40 45
 Thr Cys Asn Asn Gly Arg Cys Ile Asn Ile Asn Trp Arg Cys Asp Asn
 50 55 60
 Asp Asn Asp Cys Gly Asp Asn Ser Asp Glu Ala Gly Cys Ser His Ser
 65 70 75 80
 Cys Ser Ser Thr Gln Phe Lys Cys Asn Ser Gly Arg Cys Ile Pro Glu
 85 90 95
 His Trp Thr Cys Asp Gly Asp Asn Asp Cys Gly Asp Tyr Ser Asp Glu
 100 105 110
 Thr His Ala Asn Cys Thr Asn Gln Ala Thr Arg Pro Pro Gly
 115 120 125

<210> 39
 <211> 68
 <212> PRT

<213> Homo sapiens

<400> 39

Thr Cys Pro Pro Asn Gln Phe Ser Cys Ala Ser Gly Arg Cys Ile Pro
 1 5 10 15
 Ile Ser Trp Thr Cys Asp Leu Asp Asp Cys Gly Asp Arg Ser Asp
 20 25 30
 Glu Ser Ala Ser Cys Ala Tyr Pro Thr Cys Phe Pro Leu Thr Gln Phe
 35 40 45
 Thr Cys Asn Asn Gly Arg Cys Ile Asn Ile Asn Trp Arg Cys Asp Asn
 50 55 60
 Asp Asn Asp Cys
 65

<210> 40

<211> 248

<212> PRT

<213> Homo sapiens

<400> 40

Cys Pro Pro Asn Gln Phe Ser Cys Ala Ser Gly Arg Cys Ile Pro Ile
 1 5 10 15
 Ser Trp Thr Cys Asp Leu Asp Asp Asp Cys Gly Asp Arg Ser Asp Glu
 20 25 30
 Ser Ala Ser Cys Ala Tyr Pro Thr Cys Phe Pro Leu Thr Gln Phe Thr
 35 40 45
 Cys Asn Asn Gly Arg Cys Ile Asn Ile Asn Trp Arg Cys Asp Asn Asp
 50 55 60
 Asn Asp Cys Gly Asp Asn Ser Asp Glu Ala Gly Cys Ser His Ser Cys
 65 70 75 80
 Ser Ser Thr Gln Phe Lys Cys Asn Ser Gly Arg Cys Ile Pro Glu His
 85 90 95
 Trp Thr Cys Asp Gly Asp Asn Asp Cys Gly Asp Tyr Ser Asp Glu Thr
 100 105 110
 His Ala Asn Cys Thr Asn Gln Ala Thr Arg Pro Pro Gly Gly Cys His
 115 120 125
 Thr Asp Glu Phe Gln Cys Arg Leu Asp Gly Leu Cys Ile Pro Leu Arg
 130 135 140
 Trp Arg Cys Asp Gly Asp Thr Asp Cys Met Asp Ser Ser Asp Glu Lys
 145 150 155 160
 Ser Cys Glu Gly Val Thr His Val Cys Asp Pro Ser Val Lys Phe Gly
 165 170 175
 Cys Lys Asp Ser Ala Arg Cys Ile Ser Lys Ala Trp Val Cys Asp Gly
 180 185 190
 Asp Asn Asp Cys Glu Asp Asn Ser Asp Glu Glu Asn Cys Glu Ser Leu
 195 200 205
 Ala Cys Arg Pro Pro Ser His Pro Cys Ala Asn Asn Thr Ser Val Cys
 210 215 220
 Leu Pro Pro Asp Lys Leu Cys Asp Gly Asn Asp Asp Cys Gly Asp Gly
 225 230 235 240
 Ser Asp Glu Gly Glu Leu Cys Asp
 245

<210> 41

<211> 39

<212> PRT

<213> Homo sapiens

<212> PRT
 <213> Homo sapiens

<400> 44

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Cys | Phe | Pro | Leu | Thr | Gln | Phe | Thr | Cys | Asn | Asn | Gly | Arg | Cys | Ile |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asn | Ile | Asn | Trp | Arg | Cys | Asp | Asn | Asp | Asn | Asp | Cys | Gly | Asp | Asn | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asp | Glu | Ala | Gly | Cys | Ser | His | Ser | Cys | Ser | Ser | Thr | Gln | Phe | Lys | Cys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asn | Ser | Gly | Arg | Cys | Ile | Pro | Glu | His | Trp | Thr | Cys | Asp | Gly | Asp | Asn |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asp | Cys | Gly | Asp | Tyr | Ser | Asp | Glu | Thr | His | Ala | Asn | Cys | Thr | Asn | Gln |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Thr | Arg | Pro | Pro | Gly | Gly | Cys | His | Thr | Asp | Glu | Phe | Gln | Cys | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Asp | Gly | Leu | Cys | Ile | Pro | Leu | Arg | Trp | Arg | Cys | Asp | Gly | Val | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asp | Cys | Met | Asp | Ser | Ser | Asp | Glu | Lys | Ser | Cys | Glu | Gly | Val | Thr | His |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Val | Cys | Asp | Pro | Ser | Val | Lys | Phe | Gly | Cys | Lys | Asp | Ser | Ala | Arg | Cys |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ile | Ser | Lys | Ala | Trp | Val | Cys | Asp | Gly | Asp | Asn | Asp | Cys | Glu | Asp | Asn |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ser | Asp | Glu | Glu | Asn | Cys | Glu | Ser | Leu | Ala | Cys | Arg | Pro | Pro | Ser | His |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Pro | Cys | Ala | Asn | Asn | Thr | Ser | Val | Cys | Leu | Pro | Pro | Asp | Lys | Leu | Cys |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Asp | Gly | Asn | Asp | Asp | Cys | Gly | Asp | Gly | Ser | Asp | Glu | Gly | Glu | Leu | Cys |
| | | 195 | | | | | 200 | | | | | 205 | | | |

Asp

<210> 45
 <211> 47
 <212> PRT
 <213> Homo sapiens

<400> 45

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Cys | Ser | Ser | Thr | Gln | Phe | Lys | Cys | Asn | Ser | Gly | Arg | Cys | Ile | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | His | Trp | Thr | Cys | Asp | Gly | Asp | Asn | Asp | Cys | Gly | Asp | Tyr | Ser | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Thr | His | Ala | Asn | Cys | Thr | Asn | Gln | Ala | Thr | Arg | Pro | Pro | Gly | |
| | | 35 | | | | | 40 | | | | | 45 | | | |

<210> 46
 <211> 89
 <212> PRT
 <213> Homo sapiens

<400> 46

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Cys | Ser | Ser | Thr | Gln | Phe | Lys | Cys | Asn | Ser | Gly | Arg | Cys | Ile | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | His | Trp | Thr | Cys | Asp | Gly | Asp | Asn | Asp | Cys | Gly | Asp | Tyr | Ser | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Thr | His | Ala | Asn | Cys | Thr | Asn | Gln | Ala | Thr | Arg | Pro | Pro | Gly | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |

Cys His Thr Asp Glu Phe Gln Cys Arg Leu Asp Gly Leu Cys Ile Pro
 50 55 60
 Leu Arg Trp Arg Cys Asp Gly Asp Thr Asp Cys Met Asp Ser Ser Asp
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 Glu Lys Ser Cys Glu Gly Val Thr His
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 <211> 170
 <212> PRT
 <213> Homo sapiens

<400> 47
 Ser Cys Ser Ser Thr Gln Phe Lys Cys Asn Ser Gly Arg Cys Ile Pro
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 20 25 30
 Glu Thr His Ala Asn Cys Thr Asn Gln Ala Thr Arg Pro Pro Gly Gly
 35 40 45
 Cys His Thr Asp Glu Phe Gln Cys Arg Leu Asp Gly Leu Cys Ile Pro
 50 55 60
 Leu Arg Trp Arg Cys Asp Gly Asp Thr Asp Cys Met Asp Ser Ser Asp
 65 70 75 80
 Glu Lys Ser Cys Glu Gly Val Thr His Val Cys Asp Pro Ser Val Lys
 85 90 95
 Phe Gly Cys Lys Asp Ser Ala Arg Cys Ile Ser Lys Ala Trp Val Cys
 100 105 110
 Asp Gly Asp Asn Asp Cys Glu Asp Asn Ser Asp Glu Glu Asn Cys Glu
 115 120 125
 Ser Leu Ala Cys Arg Pro Pro Ser His Pro Cys Ala Asn Asn Thr Ser
 130 135 140
 Val Cys Leu Pro Pro Asp Lys Leu Cys Asp Gly Asn Asp Asp Cys Gly
 145 150 155 160
 Asp Gly Ser Asp Glu Gly Glu Leu Cys Asp
 165 170

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 <211> 42
 <212> PRT
 <213> Homo sapiens

<400> 48
 Gly Cys His Thr Asp Glu Phe Gln Cys Arg Leu Asp Gly Leu Cys Ile
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 Pro Leu Arg Trp Arg Cys Asp Gly Asp Thr Asp Cys Met Asp Ser Ser
 20 25 30
 Asp Glu Lys Ser Cys Glu Gly Val Thr His
 35 40

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 <211> 83
 <212> PRT
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<400> 49
 Gly Cys His Thr Asp Glu Phe Gln Cys Arg Leu Asp Gly Leu Cys Ile
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Pro Leu Arg Trp Arg Cys Asp Gly Asp Thr Asp Cys Met Asp Ser Ser
 20 25 30
 Asp Glu Lys Ser Cys Glu Gly Val Thr His Val Cys Asp Pro Ser Val
 35 40 45
 Lys Phe Gly Cys Lys Asp Ser Ala Arg Cys Ile Ser Lys Ala Trp Val
 50 55 60
 Cys Asp Gly Asp Asn Asp Cys Glu Asp Asn Ser Asp Glu Glu Asn Cys
 65 70 75 80
 Glu Ser Leu

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<400> 50
 Gly Cys His Thr Asp Glu Phe Gln Cys Arg Leu Asp Gly Leu Cys Ile
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 Pro Leu Arg Trp Arg Cys Asp Gly Asp Thr Asp Cys Met Asp Ser Ser
 20 25 30
 Asp Glu Lys Ser Cys Glu Gly Val Thr His Val Cys Asp Pro Ser Val
 35 40 45
 Lys Phe Gly Cys Lys Asp Ser Ala Arg Cys Ile Ser Lys Ala Trp Val
 50 55 60
 Cys Asp Gly Asp Asn Asp Cys Glu Asp Asn Ser Asp Glu Glu Asn Cys
 65 70 75 80
 Glu Ser Leu Ala Cys Arg Pro Pro Ser His Pro Cys Ala Asn Asn Thr
 85 90 95
 Ser Val Cys Leu Pro Pro Asp Lys Leu Cys Asp Gly Asn Asp Asp Cys
 100 105 110
 Gly Asp Gly Ser Asp Glu Gly Glu Leu Cys Asp
 115 120

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 <211> 41
 <212> PRT
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<400> 51
 Val Cys Asp Pro Ser Val Lys Phe Gly Cys Lys Asp Ser Ala Arg Cys
 1 5 10 15
 Ile Ser Lys Ala Trp Val Cys Asp Gly Asp Asn Asp Cys Glu Asp Asn
 20 25 30
 Ser Asp Glu Glu Asn Cys Glu Ser Leu
 35 40

<210> 52
 <211> 81
 <212> PRT
 <213> Homo sapiens

<400> 52
 Val Cys Asp Pro Ser Val Lys Phe Gly Cys Lys Asp Ser Ala Arg Cys
 1 5 10 15
 Ile Ser Lys Ala Trp Val Cys Asp Gly Asp Asn Asp Cys Glu Asp Asn
 20 25 30

Ser Asp Glu Glu Asn Cys Glu Ser Leu Ala Cys Arg Pro Pro Ser His
35 40 45
Pro Cys Ala Asn Asn Thr Ser Val Cys Leu Pro Pro Asp Lys Leu Cys
50 55 60
Asp Gly Asn Asp Asp Cys Gly Asp Gly Ser Asp Glu Gly Glu Leu Cys
65 70 75 80
Asp

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<400> 53
Ala Cys Arg Pro Pro Ser His Pro Cys Ala Asn Asn Thr Ser Val Cys
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Leu Pro Pro Asp Lys Leu Cys Asp Gly Asn Asp Asp Cys Gly Asp Gly
20 25 30
Ser Asp Glu Gly Glu Leu Cys Asp
35 40

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<400> 54
Ser Gly Phe Ser Leu Gly Ser Asp Gly Lys
1 5 10

<210> 55
<211> 10
<212> PRT
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<400> 55
Gly Ile Ala Leu Asp Pro Ala Met Gly Lys
1 5 10

<210> 56
<211> 10
<212> PRT
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<400> 56
Gly Gly Ala Leu His Ile Tyr His Gln Arg
1 5 10

<210> 57
<211> 11
<212> PRT
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<400> 57
Val Phe Phe Thr Asp Tyr Gly Gln Ile Pro Lys
1 5 10